

I CLAIM:

1. A latching mechanism and associated structure for a latching system, said system
having a structure module and a latch housing module, the system comprising:
 - a. A bicuspid tooth mounted upon a cam mechanism;
 - b. A cam anchor, likewise mounted on the cam mechanism said anchor situated
between the cusps of the bicuspid tooth;
 - c. An actuator for the cam mechanism to bias the tooth and cam anchor; and
 - d. Associated structure on the structure module capable of receiving the bicuspid
tooth and cam anchor;
wherein the latching mechanism is situated within the housing module and the
actuator biases the tooth and the anchor into the structure provided on the structure
module.
2. The latching mechanism of claim 1, wherein the bicuspid tooth interfaces the
structure module on opposite lateral sides and the cam anchor interfaces the structure
module on a bottom side.
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3. The latching mechanism of claim 2, wherein the cam mechanism positions the
bicuspid tooth and cam anchor into three positions relative to the housing module, the
bicuspid tooth being angled and the mechanism primarily displacing the tooth in an
angular manner so that the first position allows for free motion of the housing module
relative to the structure module, the second position, in which the bicuspid tooth is only
marginally in contact with the structure module and the cam anchor is not in any such
contact, allows for unidirectional motion of the housing module and the third allows
for no motion, both tooth and anchor being in secure contact with the structure module.
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4. The latching mechanism of claim 3, further comprising a safety latch located upon the actuator and interfacing with the housing module when in a locked position so as to prevent accidental actuation.

5. The latching mechanism of claim 4 further comprising a laterally biasable interface tooth positioned to interface with the bottom side of the structure module.

6. A latching mechanism and associated structure for an adjustable stock, said stock having a mounting module and a stock module, the mechanism comprising:

- a. A rail track, located on an underside of the mounting module;
- b. A plurality of interface detents, located in pairs on opposite lateral sides of the mounting module;
- c. A cam actuated latch, located within the stock module in a manner to interface with the mounting module when the mounting module is inserted into the stock module, the latch further comprising:

10 i. An actuator;

15 ii.a cam mechanism actuator,

iii.a cam anchor, in communication with the can mechanism and positioned to interface with the rail track

iv.a bicuspid tooth in communication with the cam mechanism, the cusps positioned on opposite sides of the cam anchor and positioned to

20 interface with one of a pair of the detents located on either lateral side of the mounting module;

wherein, the actuator positions the cam mechanism relative the mounting module.

7. The latching mechanism and structure of claim 6, the cam mechanism further comprising a three-staged mechanism, positioning the cam mechanism, and associated tooth and anchor, into open, single-direction open, and closed positions, the single-direction open position allowing no interface of the anchor with the mounting module and partial interface of the tooth with the detents in a manner to allow the stock module to be adjusted in a unidirectional manner relative to the mounting module.

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8. The latching mechanism and structure of claim 8, wherein the tooth is actuated by the cam mechanism in an angular manner, and the detents are angled in a manner to facilitate unidirectional movement when the cam mechanism and tooth are positioned in the single-direction position.

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9. The latching mechanism of claim 8, further comprising a safety latch located upon the actuator and interfacing with the stock module when in a locked position so as to prevent accidental actuation.

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10. The latching mechanism and structure of claim 6, further comprising a rail interface tooth and the rail further comprises a channel dividing the rail in a longitudinal manner, the tooth being biased in a detent position between individual rails of the rail track so as to block relative motion of the stock module but also being biasable to interface with the channel so that relative motion of the stock is possible.

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11. The latching mechanism and structure of claim 10, the cam mechanism further comprising a three-staged mechanism, positioning the cam mechanism, and associated tooth and anchor, into open, single-direction open, and closed positions, the single-direction open position allowing partial interface of the tooth with the detents in a manner

to allow the stock module to be adjusted in a unidirectional manner relative to the mounting module.

12. The latching mechanism and structure of claim 11, wherein the tooth is actuated by the cam mechanism in an angular manner, and the detents are angled in a manner to facilitate unidirectional movement when the cam mechanism and tooth are positioned in the single-direction position.

13. The latching mechanism of claim 12, further comprising a safety latch located upon the actuator and interfacing with the stock module when in a locked position so as to prevent accidental actuation.

10 14. The latching mechanism of claim 10, further comprising at least one clip, insertable within the rails of the rail track, thereby at least partially blocking the channel along the rail track and arresting motion of the stock module relative to the mounting module.

15 15. The latching mechanism and structure of claim 14, the cam mechanism further comprising a three-staged mechanism, positioning the cam mechanism, and associated bicuspid tooth and anchor, into open, single-direction open, and closed positions, the single-direction open position allowing partial interface of the tooth with the detents in a manner to allow the stock module to be adjusted in a unidirectional manner relative to the mounting module.

20 16. The latching mechanism and structure of claim 15, wherein the bicuspid tooth is actuated by the cam mechanism in an angular manner, and the detents are angled in a manner to facilitate unidirectional movement when the cam mechanism and bicuspid tooth are positioned in the single-direction position.

17. The latching mechanism of claim 16, further comprising a safety latch located upon the actuator and interfacing with the stock module when in a locked position so as to prevent accidental actuation.